

Amendments to the Claims:

Please cancel claims 8, 27, 47, 48 and 53 without prejudice or disclaimer.

1. (Currently Amended) A rotating asynchronous high voltage converter for connection of AC networks with equal or different frequencies, wherein the converter comprises a first stator connected to a first AC network with a first frequency f_1 , and a second stator connected to a second AC network with a second frequency f_2 , wherein the converter comprises a rotor which rotates in dependence of the first and second frequencies f_1 , f_2 , and wherein at least one of said stators includes at least one winding forming at least one uninterrupted turn, said winding including a current-carrying conductor a plurality of insulated conductive elements and at least one uninsulated conductive element, and a magnetically permeable, electric field confining insulating covering surrounding the conductor, including an inner layer having semiconducting properties being in electrical contact with the conductor, an insulating layer surrounding the inner layer being in intimate contact therewith and an outer layer having semiconducting properties surrounding the insulating layer and being in intimate contact therewith, wherein each layer forms a substantially equipotential surface.

2. (Previously Presented) The rotating asynchronous converter according to Claim 1, wherein at least one of said semiconducting layers has substantially equal thermal expansion coefficient as said solid insulation.

3. (Previously Presented) The rotating asynchronous converter according to Claim 2, wherein the potential of the inner one of said layers is substantially equal to the potential of the conductor.

4. (Previously Presented) The rotating asynchronous converter according to claim 1, wherein the outer layer is arranged to form substantially an equipotential surface surrounding said conductor.

5. (Previously Presented) The rotating asynchronous converter according to claim 4, wherein said outer layer is connected to a specific potential.

6. (Previously Presented) The rotating asynchronous converter according to Claim 5, wherein said specific potential is ground potential.

7. (Previously Presented) The rotating asynchronous converter according to claim 1, wherein said inner and outer layers have substantially equal thermal expansion coefficients.

8. (Cancelled)

9. (Previously Presented) The rotating asynchronous converter according to claim 1, wherein each of said inner and outer layers is fixedly connected to the adjacent layer of solid insulation along substantially the whole of a connecting surface therebetween.

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) The rotating asynchronous converter according to Claim-11 1, wherein the winding comprises a cable having a diameter comprised in the approximate interval 20-250 mm and a conductor area comprised in the approximate interval 80-3000 mm².

13. (Previously Presented) The rotating asynchronous converter according to claim 1, wherein said rotor comprises two electrically and mechanically connected rotors, which are concentrically arranged in respect of said stators.

14. (Previously Presented) The rotating asynchronous converter according to Claim 13, wherein said converter further comprises an auxiliary device connected to said rotors for starting up the rotors to a suitable rotation speed before connection of said converter.

15. (Previously Presented) The rotating asynchronous converter according to Claim 14, wherein each of said rotors comprises a low voltage winding, and wherein said rotors are rotatable with the frequency $(f_1 - f_2)/2$ and the stator has a current with a frequency $(f_1 + f_2)/2$ when said converter is in operation.

16. (Previously Presented) The rotating asynchronous converter according to claim 1 wherein said rotor comprises a single rotor concentrically arranged in respect of said stators.

17. (Previously Presented) The rotating asynchronous converter according to Claim 16, wherein said rotor comprises a first loop of cable and a second loop of cable, wherein said loops of cable are connected to each other and are arranged opposite each other on said rotor and separated by two sectors, wherein each sector has an angular width of α .

18. (Previously Presented) The rotating asynchronous converter according to Claim 17, wherein said converter further comprises an auxiliary device connected to said rotor for starting up the rotor to a suitable rotational speed before connection of said converter, and said rotor is rotatable with the frequency $f_R = \frac{\pi - \alpha}{\pi} \cdot \frac{\Delta f}{4}$, wherein $\Delta f = |f_1 - f_2|$.

19. (Currently Amended) A rotating asynchronous converter for connection of AC networks with equal or different frequencies, wherein the converter comprises a first stator for connection to a first AC network with a first frequency f_1 , and a second stator for connection to a second AC network with a second frequency f_2 , rotor means rotatable in dependence of the first and second frequencies f_1 , f_2 , and each stator includes at least one winding forming at least one uninterrupted turn, said winding comprising at least one current-carrying conductor a plurality of insulated conductive elements and at least one uninsulated conductive element, and a magnetically permeable, electric field confining insulation system surrounding the conductor, including an inner layer having semiconducting properties being in electrical contact with the conductor, an insulating layer surrounding the inner layer being in intimate contact therewith, and an outer layer having semiconducting properties surrounding the insulating layer and being in intimate contact therewith, wherein each layer forms a substantially equipotential surface, which permits a voltage level in said rotating asynchronous converter exceeding 36 kV.

20. (Currently Amended) A generator device operable with variable rotational speed, wherein the generator device comprises a stator for connection to an AC network with a frequency f_2 , a first cylindrical rotor for connection to a turbine, rotatable at a frequency f_1 , wherein said generator device comprises rotor means being rotatable in dependence of the

frequencies f_1 , f_2 , and said stator and said first cylindrical rotor each includes at least one winding forming at least one uninterrupted turn, said winding comprising at least one current-carrying conductor a plurality of insulated conductive elements and at least one uninsulated conductive element, and a magnetically permeable, electric field confining insulation system, including an inner layer having semiconducting properties being in electrical contact with the conductor, an insulating layer surrounding the inner layer being in intimate contact therewith and an outer layer having semiconducting properties surrounding the insulating layer and being in intimate contact therewith, wherein each layer forms a substantially equipotential surface surrounding the conductor.

21. (Previously Presented) The generator device according to Claim 20, wherein at least one of said semiconducting layers has substantially equal thermal expansion coefficient as said solid insulation.

22. (Previously Presented) The generator device according to Claim 21, wherein the inner layer has a potential substantially equal to a potential of the conductor.

23. (Previously Presented) The generator device according to claim 21, wherein the outer one of said layers is arranged to form substantially an equipotential surface surrounding said conductor.

24. (Previously Presented) The generator device according to Claim 23, wherein said outer layer is connected to a specific potential.

25. (Previously Presented) The generator device according to Claim 24, wherein said specific potential is ground potential.

26. (Previously Presented) The generator device according to claim 20, wherein at least two of said layers have substantially equal thermal expansion coefficients.

27. (Cancelled)

28. (Previously Presented) The generator device according to claim 20, wherein each of said two layers and said solid insulation is connected to adjacent layer or solid insulation along substantially the whole connecting surface.

29. (Currently Amended) A generator device with variable rotational speed comprising a stator for connection to an AC network with a frequency f_2 , a first cylindrical rotor for connection to a turbine, being rotatable with a frequency f_1 , wherein said generator device comprises rotor means including two electrically and mechanically connected hollow rotors arranged concentrically around said stator and said cylindrical rotor, being rotatable in dependence of the frequencies f_1 , f_2 , and said stator and said first cylindrical rotor each comprises at least one winding, forming at least one uninterrupted turn, wherein each winding comprises a cable including at least one current-carrying conductor,
 each conductor comprises a number of conductive elements,
 an inner semiconducting layer surrounding the conductor and being in electrical contact therewith,
 an insulating layer of solid insulation surrounding the inner layer and being in intimate contact therewith, and
 an outermost layer having semiconducting properties surrounding the insulating layer and being in intimate contact therewith, wherein each inner and outermost layer forms a substantially equipotential surface surrounding the conductor.

31. (Previously Presented) The generator device according to Claim 29, wherein the cable has a diameter of about 20-250 mm and a conductor area is about 80-3000 mm².

32. (Currently Amended) The generator device according to claim 29, wherein said rotor means comprises ~~two electrically and mechanically connected hollow rotors arranged concentrically around said stator and said cylindrical rotor~~ a plurality of insulated conductive elements and at least one uninsulated conductive element.

33. (Currently Amended) The generator device according to Claim ~~32~~ 29, wherein each of said rotors comprises a low voltage winding, and said rotor is rotatable at a frequency $(f_1 - f_2)/2$ when said generator device is in operation.

34. (Previously Presented) The generator device according to Claim 33, wherein said stator has a cylindrical shape.

35. (Currently Amended) The generator device according to claim 29, wherein said ~~rotor means comprises two rotors~~ comprise a first rotor and a second rotor, ~~which rotors are electrically and mechanically connected,~~ wherein said first rotor is ~~hollow and~~ arranged concentrically around said first cylindrical rotor, and said second rotor is cylindrical.

36. (Currently Amended) The generator device according to Claim ~~35~~ 29, wherein said first and second rotors of said rotor means each comprises a low voltage winding, and wherein said first and second rotors are rotatable at a frequency $(f_1 - f_2)/2$ when said generator device is in operation.

37. (Previously Presented) The generator device according to Claim 36, wherein said stator is hollow and arranged around said second rotor.

38. (Previously Presented) The use of a rotating asynchronous converter in accordance with claim 1 for connection of non-synchronous three phase networks with equal rating frequencies.

39. (Previously Presented) The use of a rotating asynchronous converter in accordance with claim 1 for connection of three phase networks with different frequencies.

40. (Previously Presented) The use of a rotating asynchronous converter in accordance with claim 1 as a series compensation in long distance AC transmission.

41. (Previously Presented) The use of a rotating asynchronous converter in accordance with claim 1 for reactive power compensation.

42. (Currently Amended) A rotating asynchronous converter employing a high voltage electric machine comprising a stator, a rotor and a winding comprising a cable including at least one current-carrying conductor and a magnetically permeable, electric field confining cover surrounding the conductor and being in electrical contact therewith, said conductor

including a plurality of insulated conductive strands and at least one uninsulated conductive strand in contact with the cover, said cable forming at least one uninterrupted turn in the corresponding winding of said machine, and wherein said ~~eable~~cover includes

an inner semiconducting layer surrounding the conductor, and being in electrical contact therewith,

an outermost layer of solid insulation surrounding the inner layer and being in intimate contact therewith, and

an outermost layer having semiconducting properties surrounding the insulating layer and being in intimate contact therewith, wherein each inner and outermost layer forms a substantially equipotential surface surrounding the conductor.

43. (Currently Amended) The converter of claim 42, wherein the ~~cover comprises an insulating layer surrounding the conductor and an outermost layer surrounding the insulating layer, said outermost layer having~~inner layer and outermost layer each have a conductivity sufficient to establish an equipotential surface around the conductor.

44. (Cancelled)

45. (Currently Amended) The converter of claim ~~44~~42, wherein the inner layer and outermost ~~layers~~layer have semiconducting properties.

46. (Currently Amended) The converter of claim 42, wherein the ~~cover is formed of a plurality of layers including an insulating layer and wherein said plurality of layers~~inner layer, insulating layer and outermost layer are substantially void free.

47. (Cancelled)

48. (Cancelled)

49. (Previously Presented) The converter of claim 42, wherein the machine is operable at 100% overload for two hours.

50. (Previously Presented) The converter of claim 42, wherein the winding is operable free of sensible end winding loss.

51. (Previously Presented) The converter of claim 42, wherein the winding is operable free of partial discharge and field control.

52. (Previously Presented) The converter of claim 42, wherein the winding comprises multiple uninterrupted turns.

53. (Cancelled)

54. (Previously Presented) The converter of claim 42, wherein the cable is flexible.

55. (Currently Amended) A rotating asynchronous converter for connection of AC networks with equal or different frequencies, wherein the converter comprises a first stator connected to a first AC network with a first frequency f_1 , and a second stator connected to a second AC network with a second frequency f_2 , wherein the converter further comprises rotor means which rotates in dependence of said first and second frequencies f_1 , f_2 , said stators each comprise at least one winding, wherein each winding comprise a cable including at least one current-carrying conductor, and an electric field confining, solid insulation covering surrounding the conductor, said conductor including at least one of a plurality of insulated conductive elements and at least one uninsulated conductive element in contact with the ~~cover~~ covering said cable comprising

an inner semiconducting layer surrounding the conductor, and being in electrical contact therewith

an insulating layer of solid insulation surrounding the inner layer and being in intimate contact therewith, and

an outermost layer having semiconducting properties surrounding the insulating layer and being in intimate contact therewith, wherein each inner and outermost layer forms a substantially equipotential surface surrounding the conductor.